

## Title (en)

Ni-BASE DIRECTIONALLY SOLIDIFIED SUPERALLOY AND Ni-BASE SINGLE CRYSTAL SUPERALLOY

## Title (de)

GERICHTET ERSTARRTE SUPERLEGIERUNG AUF Ni-BASIS UND EINKRISTALLINE SUPERLEGIERUNG AUF Ni-BASIS

## Title (fr)

SUPERALLIAGE A BASE DE NI SOLIDIFIE DE MANIERE DIRECTIONNELLE ET SUPERALLIAGE A CRISTAL UNIQUE A BASE DE NI

## Publication

**EP 1498503 A4 20060125 (EN)**

## Application

**EP 03745013 A 20030327**

## Priority

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## Abstract (en)

[origin: EP1498503A1] A Ni-base directionally solidified superalloy and a Ni-base single-crystal superalloy, which have superior creep strength at a high temperature, consists essentially of from 5.0 percent by weight to 7.0 percent by weight of Al, from 4.0 percent by weight to 16.0 percent by weight of Ta + Nb + Ti, from 1.0 percent by weight to 4.5 percent by weight of Mo, from 4.0 percent by weight to 8.0 percent by weight of W, from 3.0 percent by weight to 8.0 percent by weight of Re, 2.0 percent by weight or less of Hf, 10.0 percent by weight or less of Cr, 15.0 percent by weight or less of Co, from 1.0 percent by weight to 4.0 percent by weight of Ru, 0.2 percent by weight or less of C, 0.03 percent by weight or less of B, and Ni and inescapable impurities as a balance. The superalloys can be used for a turbine blade, a turbine vane and the like of a jet engine, an industrial gas turbine and the like. <IMAGE>

## IPC 1-7

**C22C 19/05**; **C30B 11/00**

## IPC 8 full level

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## Citation (search report)

- [X] EP 0663462 A1 19950719 - GEN ELECTRIC [US]
- [EX] EP 1568794 A1 20050831 - INDP ADMINISTRATIVE INST NIMS [JP], et al
- [AX] EP 0434996 A1 19910703 - GEN ELECTRIC [US]
- [A] EP 0789087 A1 19970813 - HITACHI LTD [JP], et al
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- [A] US 4719080 A 19880112 - DUHL DAVID N [US], et al
- [X] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 14 22 December 1999 (1999-12-22)
- [A] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 02 29 February 2000 (2000-02-29)
- See references of WO 03080882A1

## Cited by

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